EXHIBIT E

TIM D. OURY, MD, PhD

SUBJECT: BRIAN GREF

DATE: May 11, 2022

I. Background

I am board certified pathologist. I have been licensed to practice medicine since 1997. I maintain medical licenses in both North Carolina as well as the Commonwealth of Pennsylvania. My Curriculum Vitae is attached as Exhibit "A" to this report and is incorporated by reference as if each word were specifically set forth in this report. I have spent the majority of my medical career studying the pathology of asbestos associated diseases, including Brian Gref's alleged disease. I have published numerous articles and materials that contain facts and data I rely upon and that have helped form the basis of my opinions in this matter, including but not limited to, the book I co-edited entitled *Pathology of Asbestos-Associated Diseases,* Third Edition (2014). Please see my list of publications in my Curriculum Vitae attached as Exhibit "A" as well as my reliance materials attached as Exhibit "B" that are incorporated by reference into this report as if each item was specifically set forth in this report. I have also been deposed on numerous occasions as a retained testifying expert in asbestos litigation across the country. See Exhibit "C", List of Prior Testimony.

II. Case Specific Opinions

In addition to the materials listed herein, I have reviewed relevant portions of Mr. Gref's medical records (including pathology slides and tissue blocks taken from his Abdomen/peritoneum), doctors' reports, responses to interrogatories, deposition testimony, and the testimony offered by any other witnesses called on behalf of the plaintiff. I have completed my review of the materials I received regarding Mr. Brian Gref, and the findings and conclusions are summarized below.

The first specimen, labeled NF19-7699, consists of 11 slides prepared from an abdominal biopsy specimen. These show an epithelial tumor with some gland formation. The tumor is positive for calretinin (nuclear and cytoplasmic) and WT-1 (nuclear), but negative for ALK1 and MOC-31. A BAP-1 stain shows loss of nuclear labeling in the tumor cells, but retained nuclear labeling in non-tumor cells.

The second specimen, labeled S20-9166, consists of 12 slides prepared from an omentectomy specimen. These show a malignant epithelial tumor with invasion into adipose tissue. Immuno-stained sections show that the tumor is positive for calretinin (nuclear and cytoplasmic). A BAP-1 stain shows loss of nuclear labeling in the tumor cells, but retained nuclear labeling in non-tumor cells.

The third specimen, labeled NF19-7705, consists of 12 slides prepared from an abdominal fluid cytology specimen. These show atypical epithelial cells. The atypical cells stain positive for WT-1 (nuclear). A BAP-1 stain shows loss of nuclear labeling in the atypical cells, but retained nuclear labeling in inflammatory cells.

In summary, the gross distribution of the tumor as described in radiology reports, when combined with the histologic and immunochemical findings described above, are diagnostic of an epithelial mesothelioma of the peritoneum. There was no evidence of bilateral parietal pleural plaques in radiology reports and no lung tissue was sampled to determine if he has elevated levels of asbestos in his lung tissue. Thus, I am unable to objectively determine if asbestos did or did not contribute to his tumor.

If, contrary to the evidence indicated above, it is at some point proven that Mr. Gref has an asbestos related mesothelioma, I have been asked if the use of Clubman talc products would have contributed to the pathogenesis of his tumor. I have reviewed a report from Mr. Alan Segrave relating to his testing of products, including those for Clubman talc, dated 4/08/22 and 4/29/22. Based on the information in his report, it is my opinion that any potential use of Clubman talc would not have contributed to the pathogenesis of Mr. Gref's tumor.

I have also been asked if the use of any product associated with Kolmar would have contributed to the pathogenesis of Mr. Gref's tumor. Having reviewed Mr. Alan Segrave's report dated 4/29/22 related to the various cosmetic talc sources likely to be associated with the products Kolmar produced, it is my opinion that any potential use of a Kolmar related product would not have contributed to the pathogenesis of Mr. Gref's tumor.

All opinions are to a reasonable degree of medical certainty.

III. General Opinions and Areas of Expected Testimony

All of the opinions expressed below are based upon my experience, education, training and research which includes facts and data from my published work and reference materials included in Attachments "A" and "B"

I will opine as to asbestos-related diseases and the effects of asbestos exposure in occupational settings, as well as the characteristics, symptoms, and means of diagnosis of various asbestos-related diseases, and the relationship between levels of asbestos exposure and asbestos-related disease and how such exposures related to Mr. Gref. In addition, I will also address the existence or non-existence of the asbestos-related disease alleged by Mr. Gref and the role of asbestos in his disease.

Further, I intend to express opinions on asbestos-related diseases and the effects of exposure to various asbestos-containing products in persons in occupational settings. See Roggli VL, Sharma A, Butnor KJ, Sporn T, Vollmer RT. Malignant mesothelioma and occupational exposure to asbestos: a clinicopathological correlation of 1445 cases. Ultrastruct Pathol 2002; 26:55-65. I will also offer opinions regarding the epidemiology, pathology, and toxicology of asbestos-related diseases, the criteria for diagnosis of asbestos-related diseases, as well as the existence of a dose-response relationship between exposure to asbestos and asbestos-related diseases. Marsh GM, Ierardi AM, Benson SM, Finley BL: Occupational exposures to cosmetic talc and risk of mesothelioma: an updated pooled cohort and statistical power analysis with consideration of latency period. Inhal

Toxicol 2019, 31:213-23.; Marchevsky AM, Harber P, Crawford L, Wick MR: Mesothelioma in patients with nonoccupational asbestos exposure. An evidence-based approach to causation assessment. Annals of diagnostic pathology 2006, 10:241-50.; Oury TD, Sporn TA, Roggli VL. (2014) *Pathology of Asbestos-Associated Diseases 3rd ed.* Springer Heidelberg, NY.

I also will offer an opinion as to the propensity of various asbestos fiber types to contribute to mesothelioma (pleural and peritoneal) and other asbestos-related diseases such as asbestosis, pleural plaques, and pleural thickening, and the determination of the risks of suffering personal injury and/or death as a result of exposure to various asbestos-containing products in occupational and non-occupational settings.

I will express opinions in this matter regarding the nature of mesothelial cells and the process by which carcinogenesis occurs in them generally, including, but not limited to, the respective roles of oxidant release, protein receptor changes, gene expression changes, cell proliferation and/or abnormal functioning, and how talc particles and/or non-asbestiform cleavage fragments of talc, tremolite, amosite, crocidolite, anthophyllite, actinolite, and chrysotile are not capable of causing these processes in humans and/or animals. Mossman, BT, et al., Alteration of superoxide dismutase (SOD) activity in tracheal epithelial cells by asbestos and inhibition of cytotoxicity by antioxidants. Lab. Invest, 1986, 54(2): 204-212.; Manni ML, Oury TD. (2014) Oxidative stress in pulmonary fibrosis, Chapter 71, in *Systems Biology of Free Radicals and Antioxidants, Part IV Pulmonary.* (Laher I Ed.) Springer, Heidelberg, NY. pp 1611-1632. ; Price B: Industrial-grade talc exposure and the risk of mesothelioma. Critical reviews in toxicology 2010, 40:513-30.; Pierce JS, Riordan AS, Miller EW, Gaffney SH, Hollins DM: Evaluation of the presence of asbestos in cosmetic talcum products. Inhal Toxicol 2017, 29:443-56.; Finley BL, Benson SM, Marsh GM: Cosmetic talc as a risk factor for pleural mesothelioma: a weight of evidence evaluation of the epidemiology. Inhal Toxicol 2017, 29:179-85.

I will also testify, if asked, that short asbestos fibers, cleavage fragments, and talc particles have historically not produced either adverse pathogenic effect or experimental mesotheliomas. Mossman, BT (2008) Assessment of the pathogenic potential of asbestiform vs. nonasbestiform particulates (cleavage fragments) in *in vitro* (cell or organ culture) models and bioassays. Regul Toxicol Pharmacol 52(1 Supple):S200-203. PMID: 18006197; PMCID: OMC2639657,; NIOSH Intelligence Bulletin No. 62, OSHA 1992. I am of the opinion that non-asbestiform cleavage fragments are incapable of causing mesotheliomas and/or other diseases in humans. See Rubino, G., et al., Mortality study of talc miners and millers. J. Occup. Med., 1976, 18:186-193.; Rubino, G., et al, Mortality and morbidity among talc miners and millers in Italy. Dusts and Disease: Proceedings of the Conference on Occupational Exposures to Fibrous and Particulate Dust and Their Extension into the Environment, 1979, p. 357-363.; Wild, P., et al., A cohort mortality and nested case-control study of French and Austrian talc workers. Occupational and Environmental Medicine, 2002 59 (2): 98-105.; Coggiola et al. 2003. Am J Ind Med. 44(1): 63-79. An update of a mortality study of talc miners and millers in Italy.; Pira, E., et al., Mortality of talc miners and millers from Val Chisone, Northern Italy: An updated cohort study. Journal of Occupational and Environmental Medicine, 2017, 59 (7): 659-664.; Ciocan, Pira, Coggiola, Franco, Gordon, Vecchia, Negri, and Boffetta. (2021) Mortality in the cohort of talc minors and millers from Val Chisone, Northern Italy: 74 years of follow-up. Environmental Research (In Press).; Stanton, et al. Relation of particle dimensions to carcinogenicity in amphibole asbestos and other fibrous

materials. JNatl. Cancer Inst., 1981, 67: 965-975. Smith WE, Huber DD. 1979. Biologic tests of tremolite in hamsters. Dusts and Disease.

I am of the opinion that cosmetic talc free from asbestiform fibers is not capable of causing mesotheliomas in humans, and I expect to offer opinions as to the difference between non-asbestiform cleavage fragments' and asbestiform fibers' ability to cause mesotheliomas in animals and humans based upon toxicologic studies performed upon animals with asbestos fibers and non-asbestiform cleavage fragments (including, but not limited to, those of talc, tremolite, anthophyllite, amosite, actinolite, crocidolite, and chrysotile) as well as in vitro studies performed on human tissue with asbestos fibers and non-asbestiform cleavage fragments (including, but not limited to, those of talc, tremolite, anthophyllite, actinolite, amosite, crocidolite, and chrysotile), and may further opine that the published medical literature on these subjects indicates that non-asbestiform cleavage fragments do not have the ability to cause mesothelioma. See Mossman, BT (2008) Assessment of the pathogenic potential of asbestiform vs. nonasbestiform particulates (cleavage fragments) in *in vitro* (cell or organ culture) models and bioassays. Regul Toxicol Pharmacol 52(1 Supple):S200-203. PMID: 18006197; PMCID: OMC2639657;Stanton, et al. Relation of particle dimensions to carcinogenicity in amphibole asbestos and other fibrous materials. JNatl. Cancer Inst., 1981, 67: 965-975.; Finley BL, Benson SM, Marsh GM: Cosmetic talc as a risk factor for pleural mesothelioma: a weight of evidence evaluation of the epidemiology. Inhal Toxicol 2017, 29:179-85.; Ierardi AM, Marsh GM: Absence of mesothelioma risk maintained in an expanded international cohort of cosmetic talc miners and millers. Inhal Toxicol 2020, 32:257-64. Ierardi AM, Urban, A and Marsh GM. 2021. A quantitative weight of evidence of Hill's guidelines for causal inference for cosmetic talc as a cause of mesothelioma. Toxicol Appl Pharmacol https://doi.org/10.1016/jtaap.2021.115461. Smith WE, Huber DD. 1979. Biologic tests of tremolite in hamsters. Dusts and Disease.

I am of the opinion that the non-asbestiform cleavage fragments differ from asbestos fibers in that the fragments are non-reactive making them incapable of causing the abnormal pathologic or cellular responses necessary to the development of the cancer process in humans that results in mesothelioma. See Mossman (2008); Stanton, et al. (1981); Smith (1979).

In addition, the balance of human epidemiology studies (including cohort studies of talc miners from various regions of the world including, but not limited to, the United States, Italy, France, Austria, Norway, and elsewhere, epidemiologic studies of patients who have undergone talc pleurodeses, and lung burden studies of individuals with exposure to asbestos fibers and/or industrial or cosmetic talc) indicate that cosmetic talc does not cause mesothelioma in humans. See Chappell AG, Johnson A, Charles J, Wagner JC, Seal RME, Berry G, and Nicholson D. A survey of the long-term effects of talc and kaolin pelurodesis. Br. J. Dis. Chest 1979, 73: 285-288.; Hunt I, Barber B, Southon R, and Treasure T. Is talc pleurodesis safe for young patients following spontaneous pneumothorax. Interactive Cardiovascular and Thoracic Surgery. 2007, 6:117-120.; See Rubino, G., et al., Mortality study of talc miners and millers. J. Occup. Med., 1976, 18:186-193.; Rubino, G., et al, Mortality and morbidity among talc miners and millers in Italy. Dusts and Disease: Proceedings of the Conference on Occupational Exposures to Fibrous and Particulate Dust and Their Extension into the Environment, 1979, p. 357-363.; Wild, P., et al., A cohort mortality and nested case-control study of French and Austrian talc workers. Occupational and Environmental Medicine, 2002 59 (2): 98-105.; Coggiola et al. 2003. Am J Ind Med. 44(1): 63-

79. An update of a mortality study of talc miners and millers in Italy.; Pira, E., et al., Mortality of talc miners and millers from Val Chisone, Northern Italy: An updated cohort study. Journal of Occupational and Environmental Medicine, 2017, 59 (7): 659-664.; Ciocan, Pira, Coggiola, Franco, Gordon, Vecchia, Negri, and Boffetta. (2021) Mortality in the cohort of talc minors and millers from Val Chisone, Northern Italy: 74 years of follow-up. Environmental Research (In Press).; Stanton, et al. Relation of particle dimensions to carcinogenicity in amphibole asbestos and other fibrous materials. JNatl. Cancer Inst., 1981, 67: 965-975. The epidemiology studies of human populations who have been exposed to non-asbestiform cleavage fragments of various minerals (as opposed to asbestos fibers) do not indicate that such populations are at elevated risk of developing mesothelioma based upon published medical literature concerning these topics. Ierardi AM, Urban, A and Marsh GM. 2021. A quantitative weight of evidence of Hill's guidelines for causal inference for cosmetic talc as a cause of mesothelioma. Toxicol Appl Pharmacol https://doi.org/10.1016/jtaap.2021.115461;. Ierardi AM, Marsh GM: Absence of mesothelioma risk maintained in an expanded international cohort of cosmetic talc miners and millers. Inhal Toxicol 2020, 32:257-64.; See NIOSH Intelligence No. 62 (2011); OSHA (1992) In this respect I am of the opinion that spontaneous mesothelioma (including peritoneal mesothelioma) has been consistently described in the published medical literature and that the majority of female mesotheliomas do not have a known cause. See Boffetta P: Epidemiology of peritoneal mesothelioma: a review. Ann Oncol 2007, 18:985-90.fetta, et al. (2007); Oury TD, Sporn TA, Roggli VL. (2014) *Pathology of Asbestos-Associated Diseases 3rd ed.* Springer Heidelberg, NY.

I intend to opine regarding non-existence of any asbestos-related disease with respect to individuals that claim asbestos related injuries like Mr. Gref, including, but not limited to, pleural changes, asbestosis, and/or mesothelioma. I will comment regarding the lung physiology, lung function, lung defense mechanisms, and the mechanisms by which asbestos fibers do or do not cause a particular disease as it would related to Mr. Gref as well as to individuals generally. I will opine as to the levels of asbestos fibers in human tissue that do not represent disease and background or ambient air exposure which do not relate to producing asbestos-related diseases. I will also offer opinions regarding how digestion studies of lung tissue with respect to determining the causation of asbestos-related diseases are performed, and the significance of such studies' findings.

If asked at trial, I also may comment upon the testimony of other expert witnesses in this case to the extent that they may support or help clarify any of the opinions I will be giving to the jury.

IV. Statement of Compensation

I was retained to offer opinions as a diagnostic pathologist to offer specific opinions as to the cause of Mr. Gref's mesothelioma. I am being paid $600 per hour for my consulting time working on this matter. No portion of my compensation is dependent on the opinions I offer or the outcome of this litigation.

Sincerely,

Tim D. Oury, MD, PhD